In the claims:

Please amend the claims as follows:

1-14. (Cancelled)

15. (Currently Amended) A method of extracting an information signal from input signal containing both the information signal and noise, including the steps of:

estimating a non-Gaussian distribution function model for the information signal;

decomposing the input signal into multiple spectral bands;

dynamically updating said non-Gaussian distribution function model for the information signal;

producing a gain function for each of said spectral bands;

applying said gain function for each of said spectral bands to the input signal spectral bands to produce estimated information signal components for each of said spectral bands; and

combining said estimated information signal components for all of said spectral bands to produce an estimate of the information signal with reduced ~~nosie~~ noise.

16. (Previously Presented) The method in accordance with claim 15, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

17. (Previously Presented) The method in accordance with claim 15, wherein said decomposing step uses Fourier transforms.

18. (Previously Presented) The method in accordance with claim 16, wherein said decomposing step uses Fourier transforms.

19. (Previously Presented) The method in accordance with

claim 15, further including the step of estimating current information signal power.

20. (Previously Presented) The method in accordance with claim 15, further including the step of estimating current noise power.

21. (Previously Presented) The method in accordance with claim 20, further including the step of estimating current information signal power.

22. (Previously Presented) The method in accordance with claim 21, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

23. (Previously Presented) The method in accordance with claim 21, wherein said decomposing step uses Fourier transforms.

24. (Previously Presented) The method in accordance with claim 22, wherein said decomposing step uses Fourier transforms.

25. (Previously Presented) The method in accordance with claim 21, further including the step of estimating current probability of information signal presence.

26. (Previously Presented) The method in accordance with claim 25, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

27. (Previously Presented) The method in accordance with claim 25, wherein said decomposing step uses Fourier transforms.

28. (Previously Presented) The method in accordance with claim 26, wherein said decomposing step uses Fourier transforms.

29. (Previously Presented) The method in accordance with claim 15, further including the steps of:

estimating current information signal power based upon input signal power, prior information signal power, noise power, and probability of information signal presence;

estimating current noise power based upon input signal power, information signal power, prior noise power, and probability of information signal presence; and

estimating current probability of information signal presence based upon input signal power, information signal power, noise power, and prior probability of information signal presence.

30. (Previously Presented) The method in accordance with claim 29, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

31. (Previously Presented) The method in accordance with claim 29, wherein said decomposing step uses Fourier transforms.

32. (Previously Presented) The method in accordance with claim 31, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

33. (Previously Presented) A system for extracting an information signal from an input signal containing both the information signal and noise, comprising:

means for estimating a non-Gaussian distribution function model for the information signal;

means for decomposing the input signal into multiple spectral bands;

means for dynamically updating said non-Gaussian distribution function model for the information signal;

means for producing a gain function for each of said spectral bands;

means for applying said gain function for each of

said spectral bands to the input signal spectral bands to produce estimated information signal components for each of said spectral bands; and

means for combining said estimated information signal components for all of said spectral bands to produce an estimate of the information signal with reduced noise.

34. (Previously Presented) The system in accordance with claim 33, further including means for producing current information signal power fore each of said spectral bands based upon input signal power, prior information signal power, noise power and probability of information signal presence in the input signal.

35. (Previously Presented) The system in accordance with claim 34, further including means for producing current noise power for each of said spectral band, based upon input signal power, information signal power, prior noise power and probability of information signal presence in the input signal.

36. (Previously Presented) The system in accordance with claim 35, further including means for producing current probability of information signal presence for each of said spectral bands based upon input signal power, information signal power, noise power and prior probability of information signal presence in the input signal.

37. (Previously Presented) The system in accordance with claim 36, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.

38. (Previously Presented) The system in accordance with claim 36, wherein said means for decomposing the input signal uses Fourier transforms.

39. (Previously Presented) The system in accordance with

claim 38, wherein said non-Gaussian distribution function model for the information signal is a Gaussian Mixture Model.